

SFUND RECORDS CTR
2075576

RECEIVED OFFICE OF SECRETARY
NOV 16 55
FEDERAL FACILITIES CORPORATION

copy for minutes

REPORT TO THE CONGRESS
ON
SYNTHETIC RUBBER OPERATIONS

June 30, 1955

Pursuant to the Rubber Act of 1948 as Amended

FEDERAL FACILITIES CORPORATION

D C00230

FEDERAL FACILITIES CORPORATION

WASHINGTON 25, D. C.

October 25, 1955

Sirs:

I have the honor to submit herewith a report on synthetic rubber operations for the fiscal year ended June 30, 1955. Submission of this report is required under the provisions of the Rubber Act of 1948, as amended.

The Government's program for the production of synthetic rubber which began in May 1942, has now been ended, except for details of final liquidation.

All of the synthetic rubber producing facilities, except a copolymer plant at Institute, West Virginia, and an alcohol butadiene plant at Louisville, Kentucky, have been sold to private industry under the disposal program conducted by the Rubber Producing Facilities Disposal Commission. Negotiations for the sale of the Institute plant are in process by the Disposal Commission. The Louisville plant has been leased to a private operator for a three-year period.

This report covers the final year of operations by the Government of the synthetic rubber program.

Respectfully submitted,

Laurence B. Robbins

Administrator

The President

The President of the Senate

The Speaker of the House of Representatives

D 231

REPORT ON
SYNTHETIC RUBBER OPERATIONS

- June 30, 1955

Legal Authority and Responsibilities

During the fiscal year 1955, the Corporation carried out its synthetic rubber activities in accordance with the provisions of Public Law 469, 80th Congress (The Rubber Act of 1948), Executive Order 10539, dated June 22, 1954, and Public Law 205, 83rd Congress (Rubber Producing Facilities Disposal Act of 1953).

By Public Law 205, the Congress established the Rubber Producing Facilities Disposal Commission as an independent agency charged with the responsibility for disposing of the Government's synthetic rubber producing facilities. By the terms of this law, the expenses of the Commission are payable from operating revenues of the synthetic rubber program.

Summary of Operating Results

Operations for fiscal year 1955, (except for one copolymer plant) ended on April 29, 1955, at which time the plants were transferred to private ownership.

Net income for the fiscal year amounted to \$60,700,000,

D 66202

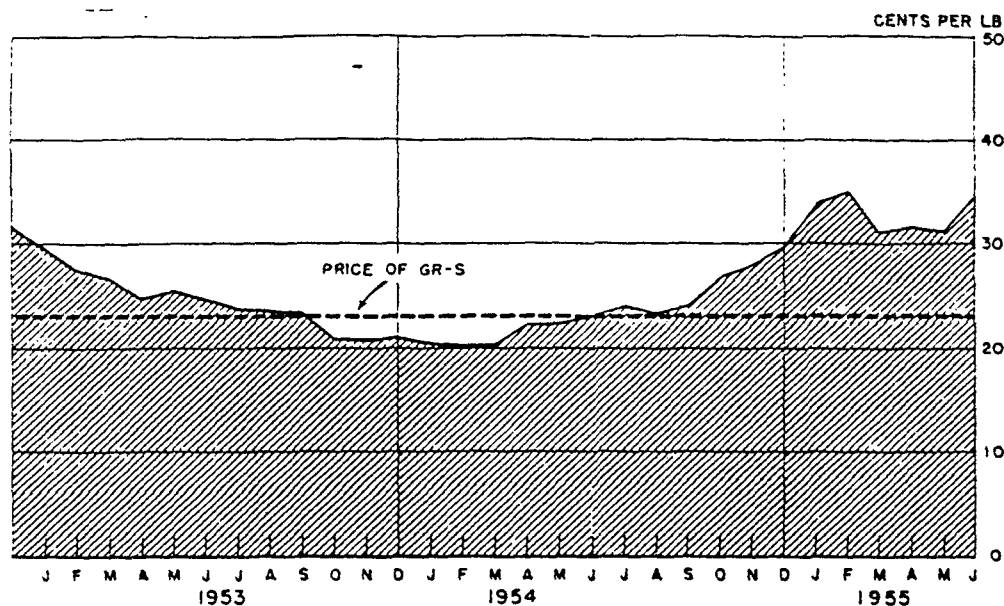
or 20% of the total sales income of \$302,900,000, and represented a 45% rise over the net income of \$41,800,000 reported for the fiscal year 1954. Production during the year totaled 518,000 long tons, 73,000 long tons less than in the fiscal year 1954. Sales amounted to 609,000 long tons compared with 558,000 long tons in 1954.

Rubber Requirements and Price Trends

No significant changes in prices of synthetic rubber were made during the year. However, the price of natural rubber responded to increased total rubber consumption and went up from 24 cents per pound on July 1, 1954, for No. 1 ribbed smoked sheet, to a high of 37 cents per pound during February 1955. Late in the same month, spot prices dropped to just over 30 cents per pound, where they remained until June and then rose to 36 cents by the end of the year. These price trends are illustrated in the chart on the following page.

AVERAGE MONTHLY SPOT PRICE
NO. 1 RIBBED SMOKED SHEETS NEW YORK

January 1953 through June 1955



SOURCE: NATURAL RUBBER PRICES FROM GENERAL SERVICES ADMINISTRATION

During the first quarter of the year, total domestic rubber consumption of 265,856 long tons was measurably lower than the 312,078 long tons consumed in the same quarter the previous year. This trend was reversed in the second quarter, and, by the third quarter, consumption was at an all time record level of 379,491 long tons. In the early part of the year, GR-S consumption amounted to 38% of the total rubber consumption while in March it had risen to 46%.

The domestic consumption of butyl failed to respond to the trend, because of the general adoption of the tubeless

tire on practically all new passenger cars. Export demand for this polymer increased appreciably and cushioned somewhat the drop in domestic sales.

Production, sales and ending inventory of GR-S and butyl for 1955 compared to 1954 are shown in the following table. (All figures are in long tons.)

<u>Fiscal Years</u>	<u>Production</u>	<u>Sales</u>	<u>Ending Inventory</u>
<u>GR-S (Net + Oil)</u>			
1955	473,415	552,269	1,121
1954	522,069	491,940	79,954
<u>BUTYL</u>			
1955	45,297	57,406	0
1954	68,059	65,914	12,106
<u>TOTALS</u>			
1955	518,712	609,675	1,121
1954	590,728	557,854	92,060

MANUFACTURING ACTIVITIES

General

Early in the year, operations were controlled to prevent an increase in inventories in the face of low sales. During the second quarter, production of GR-S was increased at a slightly lower pace than the rising sales volume. In the third quarter, maximum production which could be obtained from petroleum-butadiene capacity was maintained. Despite

these production efforts, inventories were reduced rapidly as consumption of GR-S rose to a record 62,548 long tons in March. Consumption continued high for the balance of the year with June establishing a second new high of 65,689 long tons.

Domestic sales of GR-I (butyl rubber) did not follow the pattern set by other rubber hydro-carbons during the year and inventories tended to mount in the first half. Accordingly, a second polymerization line was placed in standby at the Baton Rouge, Louisiana plant in January. During the third quarter, export sales of butyl increased and inventories were reduced to normal levels.

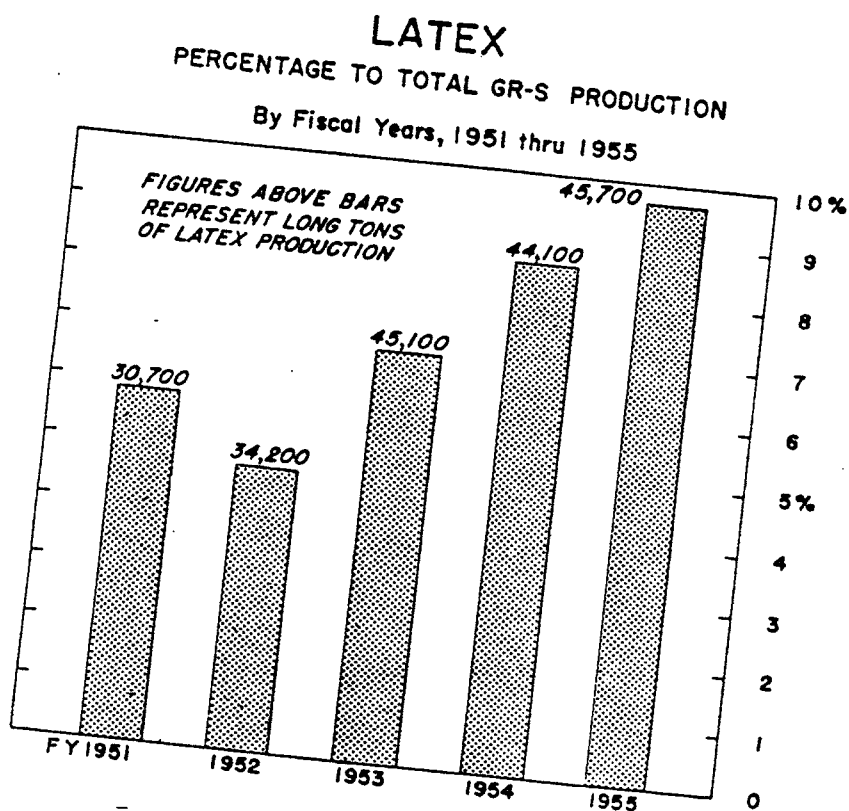
Our safety record from a standpoint of both personal injury and fire losses continued to be excellent. Fire losses for the current year were \$21,000 or about half that of the previous year.

Fire losses since January 1, 1945, the date on which the plants became self-insured, have totaled less than \$6,000,000, while insurance premiums for the same period would have exceeded \$14,750,000.

GR-S Plants

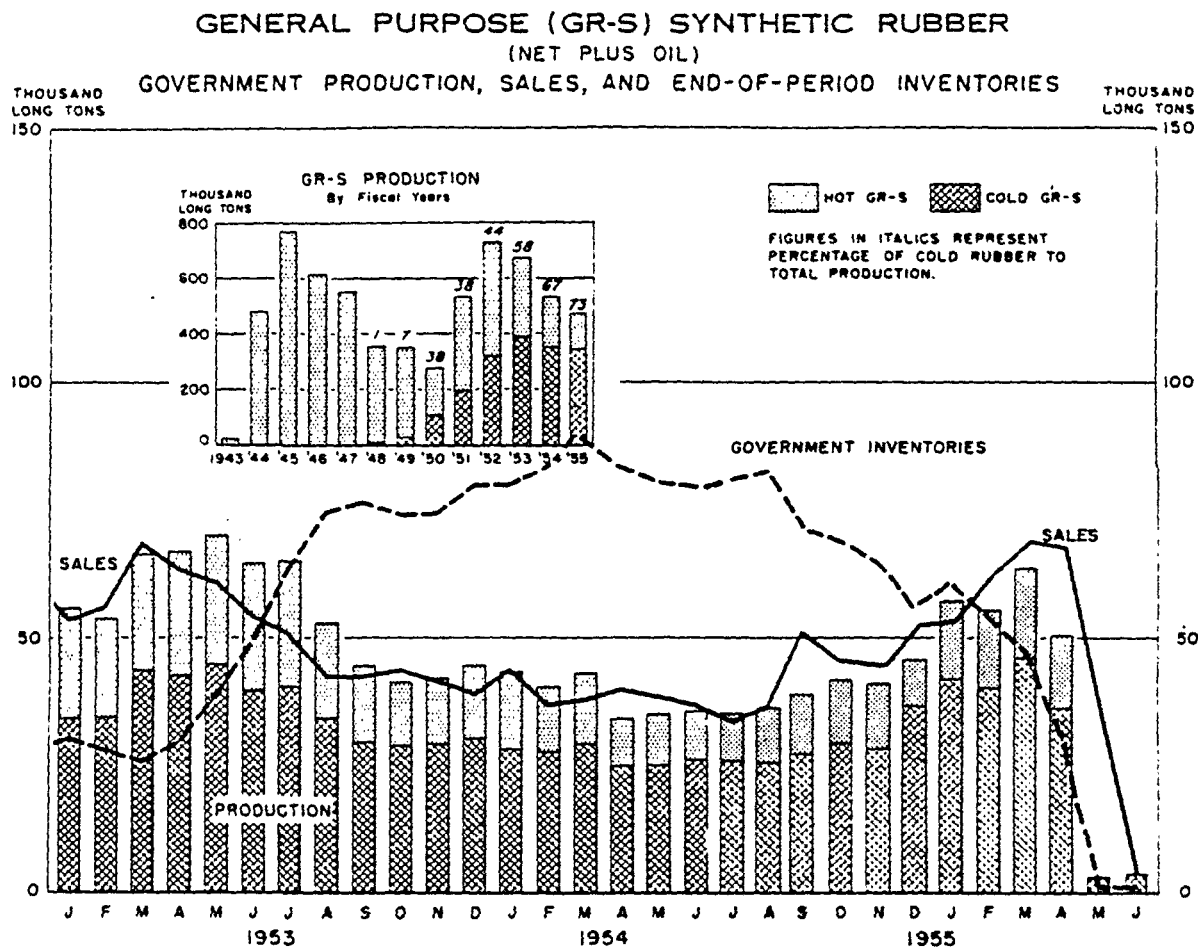
The demand for GR-S latex continued to increase during the year, and, latex sales exceeded 9% of the total GR-S

sales. Latex sales were limited by production capacity during much of the period. In an effort to meet this high demand, one reactor line at the Lake Charles, Louisiana GR-S plant produced low solids hot latex during three months of the year. The chart shows the growth of latex production for the past five years.



The major effort during the year was centered around efforts to increase production. Results of these efforts were excellent, and in March several plants established production records. The production rate in March was equivalent to

750,000 long tons of GR-S per year, which is greater than any prior monthly production rate without the Institute GR-S plant in operation. The chart below shows the trend in production for this year compared with the previous 18 months.



The quantity of GR-S produced in each major type category is shown in the table on the following page.

	<u>Production Long Tons 1/</u>	<u>% to Total</u>
Dry non-pigmented and unextended...	227,353	48.0
Oil extended.....	145,449	30.7
Black Masterbatch.....	38,506	8.1
Oil Black Masterbatch.....	16,425	3.5
Latex.....	<u>45,682</u>	<u>9.7</u>
Total.....	<u>473,415</u>	<u>100.0</u>

1/ Net plus oil basis.

Cold rubber production increased to 73% of the total rubber produced during the year compared to 67% for the previous year.

Another trend which became more pronounced during the year was the shift to film-wrapped rubber. This change was given impetus by the good performance of the multi-unit cardboard container which was adopted as a standard package in October of 1954 and has proven superior to individual bagged bales in many respects. This package reduced adhesion complaints approximately 50%.

Butadiene and Styrene Plants

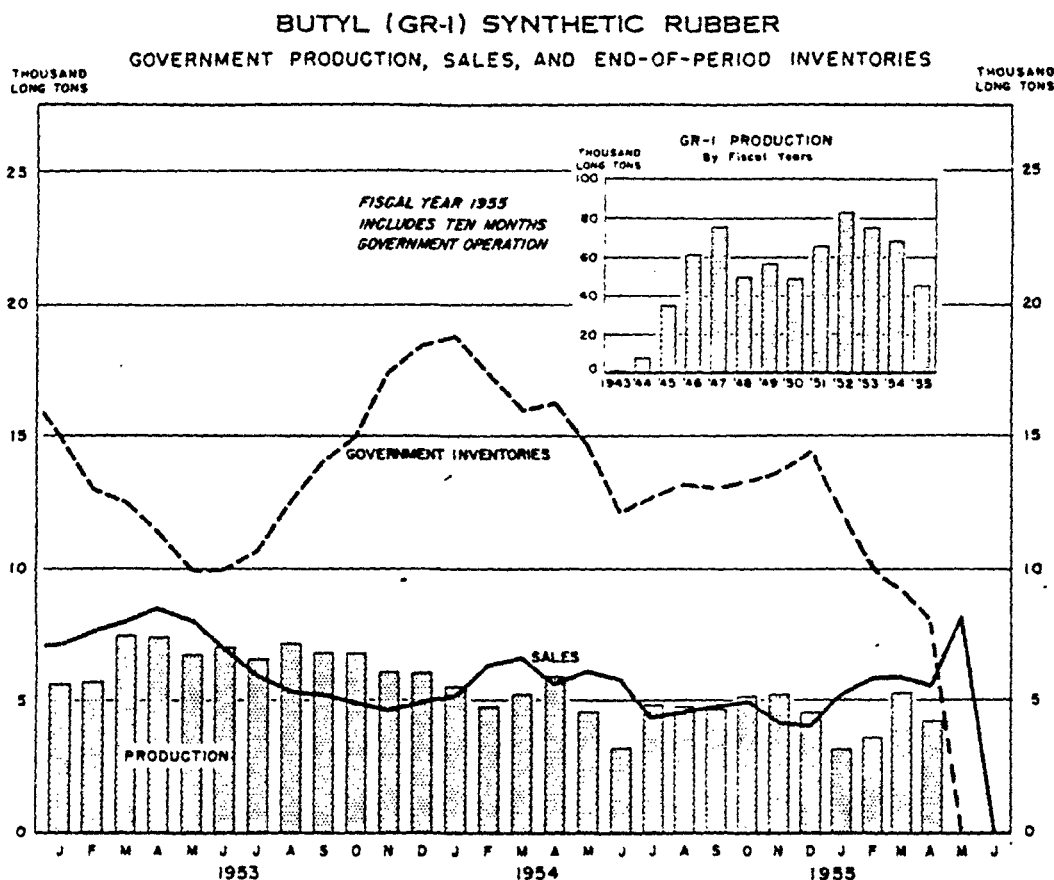
During the early part of the year operations at the monomer producing plants were at reduced production levels in line with the needs of the GR-S plants. At this time, the main emphasis was on economy, and the results were excellent. Unit costs were at a low level, even at the low rates. Later

in the year, production rates were increased and production records were achieved in the third quarter. It is significant that during this quarter when maximum output was desired the production of butadiene from petroleum sources was essentially in balance with the consumption of petroleum butadiene by the GR-S plants in operation. This situation resulted from the bottle-neck removal program carried out in the butadiene plants during 1952 and 1953. The high production of petroleum butadiene at a low cost was the major contributing factor in the low unit cost of GR-S achieved. Although it is impractical to calculate a precise figure the resulting savings, as compared to utilizing alcohol butadiene, well exceeded \$1,000,000 even for the short period during the year when peak production was required.

GR-I Plants (Butyl)

The advent of the tubeless tire adopted as standard equipment on practically all 1955 model passenger cars greatly reduced the demand for inner tube components. Since butyl consumption in the past has been almost exclusively in tubes, the demand for this type polymer dropped sharply. During the ten-month operating period, the Government plants produced 45,297 long tons of butyl. This represents approximately a 33% reduction compared to the previous year. Production rates were reduced primarily by shutting down a second unit at

the Baton Rouge plant in January 1955. The following chart shows the trend of butyl rubber production for the current year compared to the previous 18 months.



RESEARCH ACTIVITIES

The pattern of research activities conducted by the Office of Synthetic Rubber continued as in previous years. The actual research work was conducted by 8 industrial organizations, 9 universities and research institutions, a tire test contractor and the Government Laboratory operated by the

University of Akron. The overall program was formulated by the Corporation, aided by the research contractors and inter-related committees. Concurrent with the sale of most of the production plants in late April, the research conducted by all of the plant operators and the tire test contractor was terminated. Work at the universities, institutes and the Government Laboratory was continued under the auspices of Federal Facilities Corporation until June 30, 1955. At that time, the fundamental research activity was transferred to the National Science Foundation in accordance with the recommendations made to Congress by the Rubber Producing Facilities Disposal Commission.

Interest revived in hot activated types of polymers and both oil and non-pigmented types were produced. An experimental run was made at the Borger plant, using vinyl toluene as a monomer in place of styrene. This material is potentially less expensive than styrene and would provide an alternate source of monomers in case of an emergency. The GR-S produced proved equivalent to the usual product from the standpoint of consumer acceptance and production problems.

Seventy-three technical papers resulting from the research program were published in scientific and technical journals in the first 10 months of the period.

DISPOSAL ACTIVITIES

During the year, several offices of the Corporation assisted in the Disposal Program by disseminating technical information on production and operation to the staff of the Rubber Producing Facilities Disposal Commission, and to many bidders interested in acquiring the synthetic rubber plants.

By November it was anticipated that disposal would be accomplished. Many of our contracts under which the Program was operated required a 90-day termination notice. Since the timing on the Disposal Program would not permit that length of notice, nearly all of our contracts were amended to provide the Government with the right to terminate on 5 days' notice.

After the Commission's Report had been filed with the Congress, representatives of the Corporation held meetings with the prospective purchasers to make arrangements for the sale of the finished goods inventories as required by Public Law 205. Rubber was in good demand at this time, and no difficulties were encountered in developing a program entirely satisfactory to the Government.

A tentative transfer date for each plant was developed with the Commission in late January, and was subsequently

used without modification. Care was exercised to see that each contractor was given a proper termination notice. Many contracts covering operating agreements, utilities, feed stocks, chemicals and miscellaneous services were involved. On the transfer date selected for each plant, a representative of the Corporation and the public accountants were present at the plant to observe the physical inventory procedures, and to make sure that both the transfer procedure and the termination of the operating agreements were in order. Due to the many months of careful planning which had gone into the procedures used, every transfer went through on schedule without complications.

With the plant transfers completed, the work of the Corporation relating to the synthetic rubber program remained largely one of liquidation, although one copolymer plant remained in operation through the balance of the fiscal year. By the end of June the Washington staff had been reduced to about one-half its normal operating level, and further substantial reductions in personnel for the following quarter had been planned.

FINANCIAL OPERATIONS

Highlights

Operations

Sales (609,000 long tons) and other income...	\$303,900,000
Costs and other expenses (net)	243,200,000
Net income.....	60,700,000
Inventory 6-30-55 (1,100 long tons)	500,000

GR-S

In 1955, with 12 plants in operation from July 1954 through the first three weeks of April 1955, and with only one plant in operation from April 29 through June 30, 1955, the Government Synthetic Rubber Program produced 432,000 long tons of net GR-S to which had been added 41,000 long tons of oil extender as well as 25,000 long tons of carbon black. The total cost of production was \$170,377,000. Including 28,000 long tons of net GR-S which were in inventory on April 29 when all inventory was sold to the several plant purchasers, 507,000 long tons of net GR-S were sold in the synthetic rubber program. Some 45,000 long tons of oil extender and 29,000 long tons of carbon black were included with the GR-S and the total sales amounted to \$273,485,000. Down 75,000 long tons in the year, the June 30 inventory of 1,000 long tons of net GR-S with 100 long tons of oil and 500 long tons of carbon black added thereto represented a total cost of \$513,000. Net income from GR-S operations amounted to \$57,000,000.

GR-I

Production of GR-I totaled 45,000 long tons before both plants were transferred to private purchasers in April 1955. The cost of production was \$18,672,000. Sales of GR-I amounted to 57,000 long tons (including 8,000 long tons sold to the plant purchasers in the disposition of all the remaining inventories). Total sales amounted to \$29,472,000 and net income \$3,737,000.

Butadiene

Acquisitions of specification butadiene amounted to 374,000 short tons and cost \$76,861,000. Petroleum butadiene plants produced 370,000 short tons and 4,000 short tons were purchased. Production of butadiene from petroleum feedstocks equalled 344,000 long tons; 2,000 short tons were purified from extraneous crude butadiene and 24,000 short tons were extracted from copolymer recycle. The total quantity produced cost \$75,736,000 while the 4,000 short tons of purchased butadiene cost \$1,125,000.

Styrene

The production of 46,000 short tons of styrene cost \$7,785,000. Purchases equalled 60,000 short tons and cost \$21,632,000.

Plant Investment

Expenditures for capital improvements in fiscal year 1955 amounted to \$4,900,000, or 55% of the \$8,800,000 spent in the previous year. Expenditures for projects authorized in the current year amounted to \$2,200,000, or 45% of the total, with the remainder of \$2,700,000 used for the completion of projects authorized prior to July 1, 1954. The maintenance and repair costs of \$18,700,000 were \$4,900,000 less than in 1954 and were equal to \$33 per long ton of rubber produced, which was \$9 per long ton under 1954 costs.

SYNTHETIC RUBBER PROGRAM

BALANCE SHEET

JUNE 30, 1955

ASSETS

Cash on hand and in transit.....		\$12,857,680
Accounts and other receivables:		
U. S. Government agencies.....	\$ 22,642	
Other.....	7,370,089	
Purchase money mortgage notes receivable, including accrued interest.....	<u>20,478,495</u>	27,871,226
Inventories:		
Finished rubber (GR-S).....	512,914	
Raw materials, chemicals and processed stocks	3,436,421	
Operating and other supplies.....	<u>1,380,566</u>	5,339,901
Land, structures and equipment.....	64,743,403	
Less accumulated depreciation.....	<u>46,267,960</u>	18,475,443
Prepaid expenses and deferred charges.....		<u>326,922</u>
TOTAL.....		<u>\$64,871,172</u>

LIABILITIES

Liabilities to other Government agencies.....	\$ 148,177	
Liabilities to the public:		
Trade and other accounts payable.....	2,055,692	
Accrued and unbilled liabilities.....	2,066,141	
Trust and deposit liabilities.....	<u>7,541</u>	\$ 4,277,551
Reserve for employee's accrued annual leave....		202,703
Net investment.....		<u>60,390,918</u>
TOTAL.....		<u>\$64,871,172</u>

NOTES:

The amounts reflected for certain asset and liability accounts as well as the statement of operations are subject to adjustment for charges and credits arising from contract termination transactions and settlement agreements not consummated at June 30, 1955.

Contingent liabilities covering legal actions against the Corporation and claims received from contractors, operators and others are estimated at \$400,000.

SYNTHETIC RUBBER PROGRAM

STATEMENT OF OPERATIONS FOR FISCAL YEAR ENDED JUNE 30, 1955

	GR-S	GR-I	TOTAL
Income:			
Sales of synthetic rubber.....	\$273,485,244	\$29,472,395	\$302,957,639
Revenue from tank car operations.....	283,968	-	283,968
Other income.....	514,791	166,800	681,651
Total income.....	274,284,003	29,639,255	303,923,258
Operating costs and expenses:			
Cost of rubber sold:			
Cost of production:			
Cost of materials consumed.....	111,248,707	4,119,605	115,368,312
Processing costs.....	59,128,204	14,552,410	73,680,614
Total cost of production.....	170,376,911	18,672,015	189,048,926
Inventory at beginning of period.....	31,586,455	5,434,542	37,020,997
	201,963,366	24,106,557	226,069,923
Inventory at end of period.....	512,914	-	512,914
Cost of rubber sold.....	201,450,452	24,106,557	225,557,009
Gross profit.....	72,833,551	5,532,698	78,366,249
Research and development expense.....			3,814,963
Adjustment of raw materials inventories to the lower of cost or market.....			1,069,812
Storage and handling - finished goods..			1,701,333
Administrative expense.....			1,587,807
Sales freight income - net.....			(238,020)
Maintenance expense and loss on disposal - surplus property.....			2,614,627
Expense on property leased to others...			798,269
Idle plant expense.....			213,462
Other expenses and losses.....			93,979
Total other operating costs and expenses.....			11,656,232
Net income from operations.....			66,710,017
Interest expense charged to operations for statement purposes only.....			1,914,557
Shutdown expense.....			679,497
Expense of maintaining standby facilities.....			3,659,246
Total non-operating expenses.....			6,253,300
Net income (exclusive of sales of facilities and inventories)....			60,456,717
Net profit on sales of inventories (excluding finished rubber) by Federal Facilities Corporation.....			255,985
Net income from operations and profit on sale of inventories by Federal Facilities Corporation.....			60,712,702
Net profit on sales of facilities and inventories by Rubber Producing Facilities Disposal Commission plus interest and rental income related to Disposal Program.....			154,487,616
Total net income.....			\$215,200,318

D C 32.35

SYNTHETIC RUBBER PROGRAM

ANALYSIS OF INVESTMENT

JUNE 30, 1955

Net investment at June 30, 1954.....		\$223,470,59
Add funds returned to Program by RFC....	\$ 10,000,000	
Less net Program liabilities trans- ferred from accounts of RFC.....	(196,160)	9,803,84
Adjusted net investment at beginning of year.....		233,274,41
Net income for current year (exclusive of sales of facilities and inventories)....	60,456,717	
Net profit on sales of inventories (other than finished rubber) by FFC...	255,985	
Net profit on sales of facilities and inventories by Disposal Commission plus interest and rental income re- lated to Disposal Program.....	154,487,616	
Net adjustments to prior year's income..	1,605	
Interest expense charged to operations for statement purposes only.....	1,914,557	217,116,4
Net investment at beginning of year, plus net changes from operations and sales facilities and inventories.....		450,390,9
Funds returned to U. S. Treasury.....		390,000,0
Net investment at June 30, 1955...		\$ 60,390,9